

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-94 (Cancelled)

Claim 95. (New): An *ex vivo* method for downregulating HIV-1 fusion cofactor expression in a T cell comprising contacting the T cell with a bead comprising an anti-CD28 antibody or a fragment thereof and an anti-CD3 antibody or a fragment thereof; and measuring the level of HIV-1 fusion cofactor expression in said contacted T cell, wherein the level of HIV-1 fusion cofactor expression in said contacted T cell is lower than the level of the HIV-1 fusion cofactor expression in a T cell not contacted with said bead.

Claim 96. (New): An *ex vivo* method for downregulating CCR5 expression in a T cell comprising contacting the T cell with a bead comprising an anti-CD28 antibody or a fragment thereof and an anti-CD3 antibody or a fragment thereof; and measuring the level of CCR5 expression in said contacted T cell, wherein the level of CCR5 expression in said contacted T cell is lower than the level of the CCR5 expression in a T cell not contacted with said bead.

Claim 97. (New): A method for downregulating CCR5 expression in a T cell, comprising contacting the T cell *in vivo* with a bead comprising an anti-CD28 antibody or a fragment thereof and an anti-CD3 antibody or a fragment thereof; and measuring the level of CCR5 expression in said contacted T cell, wherein the level of CCR5 expression in said contacted T cell is lower than the level of the CCR5 expression in a T cell not contacted with said bead.

Claim 98. (New): A method for downregulating HIV-1 fusion cofactor expression in a T cell, comprising contacting the T cell *in vivo* with a bead comprising an anti-CD28 antibody or a fragment thereof and an anti-CD3 antibody or a fragment thereof; and measuring the level of HIV-1 fusion cofactor expression in said contacted T cell, wherein the level of HIV-1 fusion cofactor expression in said contacted T cell is lower than the level of the HIV-1 fusion cofactor expression in a T cell not contacted with said bead.

Claim 99. (New): The method of any one of claims 95-98, wherein the anti-CD3 antibody is an anti-human CD3 monoclonal antibody.

Claim 100. (New): The method of any one of claims 95-98, wherein the anti-CD28 antibody is an anti-human CD28 monoclonal antibody.

Claim 101. (New): The method of any one of claims 95-98, wherein the anti-CD3 antibody or fragment thereof and the anti-CD28 antibody or fragment thereof are coupled to the bead via a covalent modification.

Claim 102. (New): The method of any one of claims 95-98, wherein the anti-CD3 antibody or fragment thereof and the anti-CD28 antibody or fragment thereof are coupled to the bead via an avidin-biotin complex.

Claim 103. (New): The method of any one of claims 95-98, wherein the anti-CD3 antibody and the anti-CD28 antibody are directly coupled to the bead.

Claim 104. (New): The method of any one of claims 95-98, wherein the bead is a biodegradable bead.

Claim 105. (New): The method of any one of claims 95-98, wherein the bead is a magnetic bead.

Claim 106. (New): The method of any one of claims 95-98, wherein the anti-CD28 antibody or fragment thereof and the anti-CD3 antibody or fragment thereof, are coupled to the same bead.

Claim 107. (New): The method of any one of claims 95-98, wherein the T cells comprise HIV-infected T cells.